

Abstract

A method is provided for encoding $K > 1$ sequentially presented video pictures. Each of the K pictures is divided into an $m > 1$ row \times $n > 1$ column array of non-overlapping coding units of equal sizes. Each coding unit occupies a respective coding unit position in the picture from which it was divided. An arbitrary, pseudo random pattern of coding units is selected for refreshing during each of the K pictures. Each pattern selected during any given one of the K pictures includes a sequence of one or more coding units of the array. In addition, the pixels of each coding unit selected for refreshing during a k^{th} picture occupy different pixel positions than each coding unit selected for refreshing during a preceding one of the 1^{st} to $(k-1)^{\text{th}}$ pictures of the K pictures. Furthermore, each pixel position of a moving picture image formed from the K pictures is selected for refreshing once over the sequence of K pictures.

A system for encoding includes a source of the K pictures and an intra/inter decision circuit for selecting the coding units for refreshing over the sequence of K frames. The method or system produces an encoded signal which can be stored on a storage medium. A method and system for decoding the encoded signal is also provided.